

**ABSTRACT OF THE DISCLOSURE**

A method and apparatus for performing online monitoring of a chemical state of a process material. A request to provide a process chemical to a processing tool is received. The process chemical is transported through a chemical transport unit, based upon the request, to the processing tool. An online monitoring of a chemical state of the process chemical is performed. The online monitoring of the process chemical includes analyzing a resultant of a radiation signal sent through the process chemical to determine a refractive index to determine whether the chemical state of the process chemical is within a predetermined level of tolerance.